

Notice of Allowability

Application No.

10/661,154

Examiner

Eron J. Sorrell

Applicant(s)

INNAN ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 9/25/06.
2. ☒ The allowed claim(s) is/are 33,34 and 36-38.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 9/22/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20061206
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Carl Brundidge on (Reg. No. 29,621) via telephonic interview.

The application has been amended as follows:

In the claims

Claims 21-32: Canceled.

At claim 34, line 35, after the word process, delete the phrase "of a data input/output process".

Claim 35: Canceled.

At claim 36, line 30, after the word "process", delete the phrase "of a data input/output process".

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Claim 37 (new): A method according to claim 34, further comprising:

checking, by the first storage controller, whether another data frame is waiting to be processed;

if another data frame is waiting to be processed, delaying a start of execution of processing of said data frame for a period of time corresponding to the contents of said data frame;

after the delay has passed, executing, by the first storage controller, the processing including data input/output of said data frame; and

if another data frame is not waiting to be processed, executing without delay, by the first storage controller, the processing including data input/output of said data frame.

Claim 38. (new) A storage controller according to claim 36, further comprising:

means for checking whether another data frame is waiting to be processed;

means for, if another data frame is waiting to be processed, delaying a start of execution of processing of said data frame for a period of time corresponding to the contents of said data frame;

means for, after the delay has passed, executing the processing including data input/output of said data frame; and

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means for, if another data frame is not waiting to be processed, executing, without delay, the processing including data input/output of said data frame.

2. The following is an examiner's statement of reasons for allowance: the prior art of record fails to teach or suggest, alone or in combination, the determining permission/rejection of an access to the storage device based on relating Fibre Channel source port and Fibre Channel destination port to an LUN of the storage port of the destination as required by claim 33 in combination with the other claim elements. Bergten teaches a similar environment and method, however Bergsten teaches checking a reservation to determine permission/rejection of an access to a storage device.

The prior art also fails to teach or suggest, alone or in combination, the priority information indicates priority of a data I/O operation by relating the Fibre Channel source and destination ports to a delay time after which the data I/O process for the storage device as required by claims 34 and 36 in combination with the other recited claim elements.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EJS

December 7, 2006



KIM HUYNH
SUPERVISORY PATENT EXAMINER

12/08/06